RANDOM SAMPLES

edited by CONSTANCE HOLDEN

Mother-Infant HIV Trial on Track

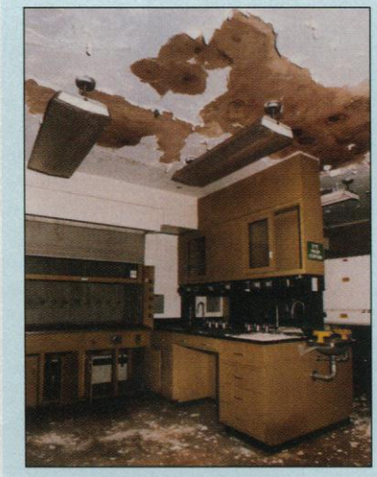
In a test that was supposed to start more than a year ago, the National Institutes of Health (NIH) is about to try to find out whether transmission of the AIDS virus from infected, pregnant women to their offspring can be prevented by beefing up the mothers' antibodies.

About one out of every five infected mothers passes HIV on to her child either in utero or at birth. In 1992, NIH had hoped to begin a trial in which pregnant mothers were given HIV hyperimmune globulin, or HIVIG, a mix of concentrated antibodies from healthy, HIV-infected people (*Science*, 17 July 1992, p. 316). But the 3-year trial of 400 women at more than a dozen sites around the country was derailed when the developer of HIVIG, Abbott Laboratories, announced that it would not provide the preparation unless the government guaranteed the company protection from lawsuits. Abbott was worried about the slight chance that HIVIG might raise the risk of a baby's becoming infected. The government refused to indemnify the company.

The impasse stood until November 1992, when Abbott transferred the rights to HIVIG to Miami-based North American Biologicals Inc., which is not demanding government protection. After soliciting bids, the government awarded a new contract to the Miami company.

In the trial, pregnant women who already are taking the anti-HIV drug AZT will get HIVIG. A noninfected control group will receive an immune globulin preparation from uninfected people as well as AZT. The first women are to be transfused next month. "Thank God this is finally coming to pass," says Elaine Sloand, a hematologist at the National Heart, Lung, and Blood Institute who helped design the trial. "I'm still mad at Abbott for leading us down the garden path."

Federal Labs Are Falling Down



Shabby lab. Benchtops at the Agricultural Research Service in Beltsville, Maryland, stand vacant as the facility awaits a new roof.

Leaky roofs, rusty pipes, collapsing ceilings, broken windows: If you're a government scientist, this description may fit your workplace. Many federal research labs are decaying and outmoded, leading to conditions that endanger scientists and slow research, according to a new report* by the congressional General Accounting Office (GAO).

GAO found that 54% of the floor space in the laboratories of the eight largest federal research agencies is more than 30 years old. And these labs aren't getting better with age. Typical problems range from the frustrating—insufficient ventilation and power, and cramped space—to the hazardous, including cracked and corroded support structures, deteriorating asbestos insulation, and inadequate fire detection and control equipment.

The report was commissioned by Senator Paul Sarbanes (D–MD), who held a hearing last week in an effort to seek new renovation funds. Not surprisingly, the hearing focused on problems in Sarbanes' own state, which has the largest number of federal labs, including the National Institutes of Health (NIH), the Agricultural Research Service's (ARS) Beltsville research center, the National Institute of Standards and Technology, and the National Aeronautics and Space Administration's Goddard Space Flight Center.

At the Beltsville facility, an ARS official testified, the power fails in some labs every few months, occasionally ruining experiments when frozen materials thaw. Other laboratories are inside converted pig barns, and 77% of the lab space at the site was built before 1943. As for NIH, the center of attention was the 43-year-old Clinical Center, which NIH wants to replace at a cost of $1.6 billion. In this 12-story building, an official testified, an overloaded exhaust system has prohibited researchers from adding new exhaust hoods and risks contaminating public spaces with laboratory fumes.

*Federal Research: Aging Federal Laboratories Need Repairs and Upgrades.

GOP Senators Pick Up Feder-Stewart Cause

Scientific misconduct sleuths Ned Feder and Walter Stewart may have been forced to quit digging into possible misbehavior during working hours at the National Institutes of Health (NIH) (*Science*, 1 October, p. 19), but that doesn't mean they have been forced into obscurity.

Two Republican senators and a Democrat in the House took up the duo's cause last week, picking up where their erstwhile champion, Representative John Dingell (D–MI), left off earlier this year. Senators Charles Grassley (R–IA) and William Cohen (R–ME) declared Stewart and Feder to be "whistleblowers" of the type protected by a new federal law and called for a probe of their possible harassment by higher-ups at NIH and the Department of Health and Human Services (HHS).

The senators fired off saber-rattling letters to HHS officials on 23 September, and requested that the General Accounting Office (GAO) investigate HHS's April attempt to dismiss Feder and Stewart. In addition, the senators asked GAO to dig into unresolved allegations of scientific misconduct at the University of Wisconsin, headed by HHS Secretary Donna Shalala before she joined the Administration. Representative John Conyers (D–MI), chairman of the government operations committee, joined the campaign with a note of support for Feder and Stewart, promising a "thorough" rehash of all these matters.

Finally, the legislators wrote to NIH director-designate Harold Varmus warning him that they intend to revisit the Feder-Stewart furor in Varmus' as yet unscheduled confirmation hearings.

UC Tables Tech Transfer Companies

Facing a barrage of faculty opposition, the University of California (UC) has withdrawn an ambitious plan to set up two companies to commercialize UC inventions. Faculty members argued that the companies would undermine their autonomy as researchers and educators—and grab the lion's share of profits from professors' work. Last week, Wayne Kennedy, UC senior vice president for business and finance, told the Board of Regents that the university had decided to defer any action on the proposal until an advisory group reviews the entire UC technology transfer plan.

Last December, UC president Jack Peltason proposed that the university system set up two entities—one a for-profit company, the other a nonprofit founda-

tion—to fund the development of technologies by UC researchers to the point where they could be licensed, or to create spinoff companies for the same purpose (*Science*, 18 December 1992, p. 1875). Profits from the ventures would be reinvested in the technology transfer efforts, rather than returned to university research.

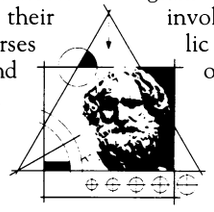
But UC researchers, led by Paul Boyer, emeritus professor of molecular biology at UCLA, launched an offensive against the proposal in March, culminating in a petition signed by 43 other UC scientists (including *Science* editor-in-chief Daniel Koshland). Many of the researchers worried that the proposed companies would detract from university research and education efforts, and undermine campus authority and faculty input with regard to technology transfer issues. They also were concerned that the companies would drain patent income from the university and—a point keenly felt—the researchers themselves. And some signatories, such as UC San Francisco biochemist Keith Yamamoto, argued that encouraging scientists to start companies was outside the mission of the university and could lead to discrimination against researchers who decline to take that route.

As a result of the petition and other objections, UC plans to assemble a technology transfer advisory group made up of faculty and administrators. The group will meet later this month and should make its final recommendations by February.

Pumping Up Science Awareness in Europe

In the golden days of the Renaissance, an educated person was well acquainted with a broad range of arts and sciences. Today's Europeans need to recapture that spirit, says Antonio Ruberti, the European Commission's (EC) vice president in charge of science. So last month he announced that Europe would hold a "week for science culture" at the end of November.

Ruberti noted that while "science and technology are integral parts of the European cultural heritage," students across Europe are turning their backs on science courses in favour of the arts and humanities—which will not help further the EC's goal of keeping Europe's high-tech industries competitive with those in the U.S. and Japan.



The Commission's "week" will feature 22 events including television programs on Europe's science museums and genetic diversity across Europe; open days at major European laboratories like CERN; and conferences ranging from pollution in the Mediterranean to the history of European science. Ruberti launched a similar science culture week in 1991 when he was Italy's science minister, and several other countries have national festivals.

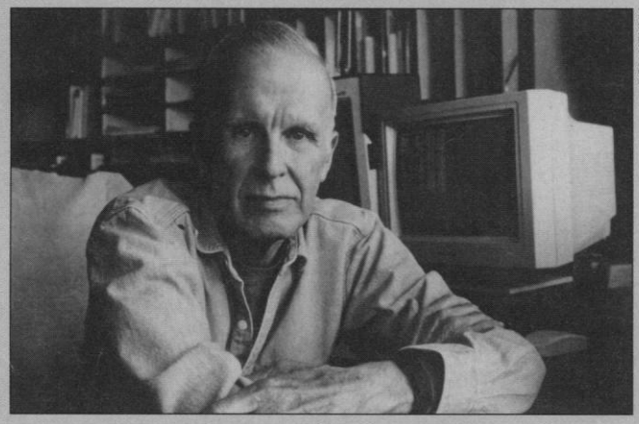
There is, however, one basic problem with the European program. "Not many of the events involve members of the public directly, while many others are conferences for people involved in the public understanding of science," admits Sally Goodman of the British Association for the Advancement of Science. However, "it has started the commission talking about public understanding...[and] is forging European links." In one gesture toward public outreach, London's Science Museum is organizing a sleep-over in the museum for 400 8-to-11-year-olds from eight countries.

Ruberti isn't certain about future science weeks, hedging his bets by calling this "year zero" of the event.

Draper Prize to Father of FORTRAN

John Backus, creator of the computer language FORTRAN, is this year's winner of the National Academy of Engineering's biennial Charles Stark Draper prize—at $375,000 the world's biggest engineering prize.

FORTRAN, which stands for FORmula TRANslation, is "the first general purpose, high-level computer programming language," says the academy. It has made computer programming accessible to nonscientists, and has been the code behind a range of advanced applications such as robots and flight simulators. Backus, 69, developed the language in the early '50s at IBM, where he spent his entire career. He will be honored at a ceremony in Washington, D.C. in February.



DON KENNY

Revolutionary. Backus opened a new age of programming.

NSF Joins the Crowd In New Program

The National Science Foundation (NSF) has belatedly signed on to a congressionally mandated, Administration-backed plan to encourage academic researchers to commercialize their discoveries. The agency's decision to participate in the Small Business Technology Transfer Research (STTR) program resolves a dispute between NSF and Congress (*Science*, 10 September, p.1384) on when NSF would join four other federal agencies in the 3-year pilot program.

NSF originally wanted to wait until 1995 to jump in because it didn't want to spend the $1.2 million a year that STTR will cost. Instead, the agency wanted to launch a similar program, Industry University Cooperative Research (IUCR) projects, based on investigator-initiated proposals developed in collaboration with businesses (of any size). The STTR program works the other way around, involving proposals from small businesses that include participation by academic researchers.

But NSF has now decided that it can afford both programs, although IUCR will be smaller. The STTR program will focus on analytical chemical instrumentation, a field that provides a quick path to commercialization. For example, "scientists are often forced to build a [single] new piece of equipment for a particular experiment," says Joseph Bordogna, associate NSF director for engineering. "With STTR, we're giving them a chance to hook up with a small company and build thousands of them for the marketplace."

A solicitation will go out next month, and awards are to be announced next July.* Successful applicants will get up to $100,000 to prove the feasibility of their ideas, and up to $350,000 in a second round for prototypes.

*For information, call NSF's Michael Crowley at (202) 653-5317; after 29 October, call (703) 306-1391.